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ABSTRACT

This short, narrative pamphlet on saw and planing mills accompanies the appropriate grade level curriculum guide. (BP)

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The Saw and Planing Mills

L 3
Grade 5

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"I got the job," Dick shouted, slamming the door shut in his haste to make the announcement.

Becky was trying to do a math problem. Such a bother to have my noisy brother home from college for spring vacation, she thought to herself.

Dick had left home early on his second day home. He was determined to find some summer work. His first choice was the lumber mill, because he knew it would pay better than most other jobs in town.

Dick wanted summer work in Placeville so he could live at home. His college money wasn't stretching very far, so he needed to save most of what he earned.

"What job did you get?" mother asked.

"I'll be on the cleanup crew at the lumber yard," Dick replied. "That means I'll do a lot of odd jobs. The personnel director said they might have me fill in several different spots for men on vacation towards the end of the summer."

Becky interrupted, "I'm glad you got the job, Dick. Now, will you help me with this hard math problem?"

Summer rolled around quicker than Becky thought possible. Dick arrived home from college, where he was studying to be an engineer, and started work the next day.

It wasn't long before sixth grader Becky was learning all the proper logging and lumbering terms. Dick and father talked about the mill at night. "Dad always wanted to be a logger, so he learned about the business," Dick explained to Becky.

"Why isn't Dad a logger then?" Becky asked.

"Well," Dad said, overhearing the conversation, "I wanted to be a chemist, too. I made that decision in high school because I wanted to go to college. Now

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CAREER ORIENTATION UTILIZING LANGUAGE DEVELOPMENT

A PACE PROJECT

Elementary and Secondary Education Act of 1965

Project COULD was developed as a means of building skills, knowledges, and attitudes upon elementary children's previously acquired backgrounds. Children learn to [illegible] and vocabulary characteristic of the language heard most frequently at home and in the immediate environment.

A series of units of instruction were developed from the concepts and vocabulary of the industries indigenous to Coos County. The intention was to promote vocational awareness, exploration and language development for the students in grades 3 through 8.

Materials prepared by Project COULD are available from the IMC of Coos County Intermediate Education District, 2405 Colorado Street, North Bend, Oregon, 97459.

many of the logging and sawmill jobs require college degrees, but most didn't when I was selecting my career."

Dick got up early every morning for work. His shift started at 7 a.m. The nice thing about that was having him home in the middle of the afternoon.

"Today I was a boom man," Dick announced one night at dinner. "What's that mean?" Becky asked. "Well, I worked in the log pond," Dick told Becky, purposely teasing her a little by not telling her what that meant either. He hesitated a few seconds and then told her, "I had to wear spiked boots and walk on the wet logs to sort them. You use a spiked pole called a pike pole to sort the logs. All of one size go into the mill together," he continued.

"You don't have spiked boots," Becky said.

"Well, I wasn't actually a boom man," Dick finally admitted with a little grin. "The truck driver needed a little help unloading so they sent me."

Logs are kept in the pond until they're ready to go into the mill. This protects them from things like insects, fungi and even fire. After the logs are sorted by the boom men, a conveyer belt takes them up a wooden chute into the mill.

One day Dick worked with the debarker. He was going on vacation and this was to be Dick's first chance at being a real lumberman.

"As the logs go into the mill they actually get a bath," Dick told the family after his first day with the debarker. "This removes the sand, dirt and anything on the outside that might dull the sharp saw blade."

The debarking step is next. At Dick's mill they used one with rough metal bars that rub and chip off the bark. "I have to be sure the log gets into the machine

right. The machine has a panel of levers so I can adjust the log. Another lever controls the chains to bring the logs into the debarker. I make sure only one log goes into the machine at a time."

"After the bark is off, I push a lever and the log jumps onto another conveyer belt headed for the headsaw. The log then goes on a carriage. This looks like a small railroad flatcar. The carriage takes the logs into the teeth of the headsaw," Dick explained.

Dick also told Becky how the headsaw worked. "Each time the carriage goes past the saw, the saw sliced off a board until the log has become a pile of boards."

Dick thought the sawyer was one of the most important men at the mill, although he also watched the engineers closely. In most smaller mills the sawyer is usually the sawmill foreman and is responsible for the crew's safety as well as for production.

The sawyer decides how to turn the log between each cut to get the most lumber out of the log. The best grade of lumber is near the outside so sometimes the sawyer decides to get fewer boards, but better grade by the way he turns the log.

The mill where Dick worked had an automated log turner that was controlled by console. But many of the men remembered serving as a deckman for this process. The deckman used a short handled cant hook to turn the logs to the proper position for the headsaw. They told Dick all the small mills still use a deckhand because it is easy to turn logs that are less than 20 inches in diameter.

The pile of boards from a log at the end of the headsaw is called green lumber. Becky said, "It didn't look green to me when I toured the mill." Dick told

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her that all lumber is called green until it is dry and seasoned.

Dick didn't get to operate any of the saws, but he carefully watched the men who did. They were all cautious about safety. In the edging room the edger man operates the edger to remove the bark or defective edges from the sawed boards. The edger man makes sure that each board has straight, even sides.

"Some mills have a special trimming department with saws to make the ends of the boards square. But in our mill this is done by the edger. All they do in trimming is cut the boards to fill exact lengths for lumber orders," Dick said.

"After the boards are trimmed they are put on the green chain to be pulled for grading," Dick told Becky. "The green chain is just a long chain which moves the lumber past the pullers. Being a puller would be fun.

Sometimes pullers are called graders, because they mark the boards according to grade, size and defects."

"Graders walk along the green chain and examine each board carefully to decide what grade it is. Each grader has two long sticks. One has a hook on the end to flip the board over and the other has a crayon on the end to mark the grade on the board," Dick said.

"What other jobs do they have at the mill?" Becky asked one night at dinner.

"We've talked about most of them," Dick said. "Let's see. You know about barkers, the clean up crew, boom men, graders and sawyers. I bet you don't know what a millwright is, though."

"No, I don't," Becky said.

"The millwright keeps everything in good operating condition at the mill. He's always checking the power units and engines to be sure they work correctly. When saws need replacing, he helps and checks to see the installation is done properly," Dick told Becky.

"And, of course, there are engineers. Maybe some day I'll work at the mill as an engineer when I finish college," Dick said.

"What does the engineer do in a mill?" Becky quizzed Dick.

"They design any major overhauls and replacement machinery for the mill. Bill is the only one at our mill with an engineering degree," Dick explained.

Becky decided when school started she would do a report on the mill. She had Dick outline the steps from the time the log was dumped into the mill pond to the finished product that was shipped to the lumber yard.

Dick's outline started with sorting the logs in the pond. Then they were sent for debarking. Next

they went to the headsaw and were cut into planks.

Next on Becky's outline was grading of the lumber. Dick explained there was one more important step called seasoning. "Seasoning is just removing the extra moisture from the lumber," Dick explained. He told Becky more than half the weight of green lumber is moisture in the wood.

"Seasoning keeps the wood from warping," Dick said. "We use dry kilns to season the wood, but some smaller mills use air drying. Air drying means a special way of stacking the boards outside to let the sun and wind dry them."

"How does the kiln dry it differently?" Becky asked.

"The kiln is more controlled and dries it more quickly. The lumber is still stacked in a special way, but it's done inside this heated building at the end of the mill. Warm, dry air is controlled by special instruments and forced through the stacks of lumber," Dick said. "The instruments tell how much moisture remains in the wood so this method is better than air drying," he continued.

Dick told Becky she should include some information about the planing mill for a good report on lumber mills. He said only a small amount of rough lumber is used for construction and the rest must go through a planing mill.

"The planing mill actually finishes off the board so it is smooth and looks good. The planer is a machine with sharp knife blades. These blades smooth and shave the boards," Dick said, "so they are easy for a builder or carpenter to work with."

"Is the planing mill part of the Placeville mill?"

Becky asked.

"No. We send the rough lumber to planing mills in other towns after it is seasoned," Dick explained.

Becky kept good notes on things about the mill so she would have an interesting report for school.